

DIRECT TESTIMONY

of

**Mike Luth
Rate Analyst**

**Rates Department
Financial Analysis Division
Illinois Commerce Commission**

**Request for Approval of Revisions to Delivery Services Tariffs
and for Approval of Delivery Services Implementation Plan for
Residential Customers**

**Central Illinois Public Service Company, d/b/a AmerenCIPS
and
Union Electric Company, d/b/a AmerenUE**

Docket No. 00-0802

April 20, 2001

Witness Identification

1 Q. Please state your name and business address.

2 A. Mike Luth, Illinois Commerce Commission, 527 East Capitol Avenue,
3 Springfield, Illinois 62794.

4 Q. What is your present position with the Illinois Commerce Commission?

5 A. I am currently a Rate Analyst in the Rates Department of the Financial Analysis
6 Division. In that position, I review and analyze tariff filings by electric, gas,
7 water and wastewater utilities with regard to cost of service and rate design. I
8 make recommendations to the Commission on such filings and participate in
9 docketed proceedings as assigned. In this docket, I evaluated the cost of
10 service and rate design aspects of the Delivery Services Tariffs ("DST") filed
11 by the Ameren operating companies Union Electric Company ("UE" or the
12 "Company") and Central Illinois Public Service Company ("CIPS" or the
13 "Company", UE and CIPS jointly "Ameren").

14 Q. Please state your professional qualifications and work experience.

15 A. I received a B.S. in Accounting from Illinois State University. I have earned the
16 C.P.A and C.M.A professional designations. Since graduating, I have worked
17 as an Assistant Property Manager with a real estate company and as a Field
18 Auditor with the Wisconsin Department of Revenue. In October of 1990, I
19 joined the Accounting Department of the Illinois Commerce Commission

20 (“Commission”). In June 1998, I transferred from the Accounting Department
21 of the Commission to the Rates Department.

22 Q. Have you testified in any previous Commission dockets?

23 A. Yes. I have testified on numerous occasions before the Commission.

24 Introduction to Testimony

25 Q. What is the subject matter of your testimony?

26 A. My testimony presents the results of my analysis of the Cost of Service Studies
27 (“COSS”) prepared by Ameren witness Difani (Ameren Exhibit Nos. 9.0, 9.2
28 and 9.3). Mr. Difani’s COSS allocates distribution costs to rate classes, and
29 classifies those costs as customer or demand-related for each rate class. As
30 a result of my review, I recommend certain changes to the COSS prepared by
31 Mr. Difani so that it is consistent with the allocation and classification of costs
32 in Ameren’s previous DST Docket No. 99-0121. My recommended changes
33 to Mr. Difani’s COSS affect the allocation of costs between rate classes, and
34 also affect the classification of costs within the rate classes as customer or
35 demand-related. I will discuss my recommended changes to Mr. Difani’s
36 COSS and also discuss the recommended rates that result from the revised
37 COSS.

38 Q. Are you sponsoring any schedules as part of your testimony?

39 A. Yes, I am.

Schedule 1 Delivery Services Cost of Service Allocation Study

Schedule 2 Delivery Services Rate Design

40 Schedule 1 and Schedule 2 are prepared individually for CIPS and UE. CIPS
41 schedules are identified by a -CIPS suffix and, similarly, the UE schedules are
42 identified by a -UE suffix.

43 Q. Did the Company propose any charges that may affect your testimony and
44 schedules?

45 A. Yes. While I am not addressing Ameren's proposed Rider SG, as discussed
46 by Company witnesses Mill (Ameren Exhibit No. 2.0, pages 11 and 12) and
47 Cooper (Ameren Exhibit No. 8.0, pages 22 and 23), Rider SG could affect the
48 design of rates. Staff witness Haas discusses Rider SG. To the extent, if any,
49 that Rider SG is authorized by the Commission, revenues from that Rider SG
50 should be included in the design of rates, because Rider SG, if implemented,
51 would represent a source of revenue for Ameren from its delivery services.

52 Q. What are differences between the DST rates that you are proposing and the
53 rates that UE and CIPS are proposing?

54 A. The following table summarizes the differences between the rates that I am
55 proposing and the rates that the Company is proposing¹:

¹ Customer charges include metering rates, except residential rates which do not have metering rates. All Staff rates reflect the difference between Company and Staff proposed delivery services revenue requirement.

56

CIPS:

<u>Delivery Services Rate Class</u>	<u>Company Rate</u>	<u>Staff Rate</u>
Residential DS-1 customer charge	\$ 17.08	\$ 9.35
Residential DS-1 per-kWh	\$ 0.0170	\$ 0.0198
Secondary General Service DS -2 customer charge	\$ 20.00	\$ 13.30
Secondary General Service DS -2 per kWh	\$ 0.0141	\$ 0.0156
Primary General Service DS -2 customer charge	\$ 240.00	\$ 151.55
Primary General Service DS -2 per kWh	\$ 0.0115	\$ 0.0157
Secondary Large General Service DS-3 customer charge	\$ 120.00	\$ 141.01
Secondary Large General Service DS-3 per kW	\$ 4.63	\$ 4.6906
Primary Large General Service DS-3 customer charge	\$ 242.00	\$ 1,019.14
Primary Large General Service DS-3 per kW	\$ 3.55	\$ 3.0747
High Voltage Large General Service DS-3 customer charge	\$ 1,271.00	\$ 2,092.85
High Voltage Large General Service DS-3 per kW	\$ 2.05	\$ 1.2006
138 kV+ Large General Service DS-3 customer charge	\$ 5,318.00	\$ 6,470.63
138 kV+ Large General Service DS-3 per kW	\$ 0.35	\$ 0.2895

57

UE:

<u>Delivery Services Rate Class</u>	<u>Company Rate</u>	<u>Staff Rate</u>
Residential DS-1 customer charge	\$ 16.94	\$ 8.65
Residential DS-1 per-kWh	\$ 0.0112	\$ 0.0124

<u>Delivery Services Rate Class</u>	<u>Company Rate</u>	<u>Staff Rate</u>
Secondary General Service DS -2 customer charge	\$ 23.43	\$ 14.81
Secondary General Service DS -2 per kWh	\$ 0.0091	\$ 0.0099
Large General Service DS -3 customer charge	\$ 161.44	\$ 203.29
Large General Service DS -3 per kW	\$ 2.96	\$ 3.0135
Primary Large General Service DS-4 customer charge	\$ 322.07	\$ 1,149.86
Primary Large General Service DS-4 per kW	\$ 1.53	\$ 1.9915
High Voltage Large General Service DS-4 customer charge	\$ 4,189.36	\$ 6,582.10
High Voltage Large General Service DS-4 per kW	\$ 1.15	\$ 0.5321
138 kV+ Large General Service DS-4 customer charge	\$ 2,339.48	\$ 4,828.71
138 kV+ Large General Service DS-4 per kW	\$ 0.99	\$ 0.4852

Cost of Service Studies ("COSS")

58 Q. Please describe Schedule 1, Delivery Services Cost of Service Allocation
59 Study.

60 A. Schedule 1, Delivery Services Cost of Service Allocation Study presents my
61 recommended adjustments to the COSS prepared by Ameren witness Difani.
62 Schedule 1 is the summary of FERC account-by-account allocation of costs to
63 delivery services rate classes.

64 Q. Please describe the differences between the COSS submitted by Ameren
65 witness Difani and the COSS that you developed.

66 A. The most significant or recurring difference was in the treatment of several
67 demand-related plant-in-service and expense accounts. Ameren treated
68 several demand-related accounts as being partially customer-related, whereas
69 I treated those accounts as being fully demand-related. Ameren's treatment of
70 several demand-related accounts as being partially customer-related is not
71 consistent with the Order in Ameren's DST Docket No. 99-0121 and the
72 testimony supporting the conclusions in that Order

73 Q. What were the accounts where you revised Ameren's customer-related costs
74 into demand-related costs?

75 A. The affected plant-in-service accounts are shown in the following table:

<u>Account No.</u>	<u>Account Title</u>
364	Poles, towers and fixtures
365	Overhead conductors and devices
366	Underground conduit
367	Underground conductors and devices
368	Line transformers
369-1	Overhead services
369-2	Underground services

76 The changes in cost allocation and classification of these plant-in-service
77 accounts affected the allocation and classification of General Plant costs.

78 Affected operating and maintenance expense accounts are shown in the
79 following table:

<u>Account No.</u>	<u>Account Title</u>
583-1	Overhead line expenses
583-2	Overhead transformer expenses

<u>Account No.</u>	<u>Account Title</u>
584-1	Underground line expenses
584-2	Underground line transformer expenses
593	Maintenance of overhead lines
594	Maintenance of underground lines
595	Maintenance of line transformers

80 The changes in cost allocation and classification of these operating and
81 maintenance expense accounts affected the allocation and classification of
82 account numbers 581, "Load dispatching"; 588, "Miscellaneous distribution
83 expenses", 590, "Maintenance supervision and engineering"; and 598,
84 "Maintenance of miscellaneous distribution plant".

85 Q. How did you revise Ameren's customer-related costs into demand-related
86 costs?

87 A. I revised the customer-related costs into demand-related costs in the
88 appropriate accounts by determining a combined demand allocation factor for
89 each account. The combined demand allocation factor revises the allocation
90 of Ameren's customer-related components of the affected accounts on the
91 basis of the combined allocation of Ameren's demand-related components of
92 the same accounts. Using this method changes Ameren's customer-related
93 costs in the appropriate accounts into demand-related costs.

94 In the accounts where it is used, the combined demand allocation factor is
95 determined on an account-by-account basis. For example, at CIPS for
96 account no. 364, the combined demand allocation factor for rate class DS-1 is

determined by taking the sum of the amounts allocated by CIPS allocation factors A.F.3, A.F.4 and A.F.5 for rate class DS-1 and dividing by the sum of the amounts to be allocated under the CIPS Total column by the A.F.3, A.F.4 and A.F.5 factors. The quotient for DS-1 is then multiplied by the amount to be allocated by the "Combined" factor under the CIPS Total. The same process is repeated for each rate class to allocate the full amount among all rate classes. The same process is used for each account where a "Combined" allocation factor is used, using the comparable amounts for those accounts.

For account numbers 368, 584-2 and 595, the combined allocation factor represents a repeat of the single Ameren demand allocation factor based upon secondary demand, and is labeled the same rather than labeling it "Combined". The same allocation factor is used in these accounts because there is only one demand allocation factor for the account, so there is no need to weight the underlying demand allocation factors, as is the case with account numbers 364, 365, 366, 367, 593 and 594 where the combined demand allocation factor is labeled "Combined".

Q. Did you change the Ameren demand allocation factor in any accounts?

A. Yes, I did. For plant-in-service account numbers 369-1, "Overhead services" and 369-2, "Underground services"; I used a services allocation factor. The services allocation factor that is used in the COSS that I prepared in this docket has the same class percentages as the services allocation factor

118 determined in the last Ameren DST Docket No. 99-0121. A services
119 allocation factor was used in that docket for these accounts, and it should be
120 used in this docket because account nos. 369-1 and 369-2 record Services
121 costs.

122 For the operations and maintenance expense account no. 589, "Rents", I used
123 the overall allocation of Distribution Plant among the rate classes as an
124 allocation factor for account no. 589. This is the same allocation factor that
125 was used in the last Ameren DST docket, and it is appropriate for use in this
126 docket because this account record payments for rent of property, owned by
127 parties other than Ameren, for use by the distribution system. If Ameren owned
128 the property, the property would be recorded as a plant-in-service item, so an
129 allocation factor based upon how the distribution plant-in-service is allocated is
130 appropriate for account no. 589.

131 Q. What are the effects of revising customer-related components of certain
132 accounts into demand-related components?

133 A. The process of revising customer-related costs into demand-related costs
134 affects not only allocation of costs among rate classes, but also affects rate
135 design. Since I used a different allocation factor for some of Ameren's
136 customer-related costs, there are some differences in costs allocated to the
137 rate classes. Rate design is affected because demand-related costs are
138 recovered from demand-related charges on a per-kW of demand or per-kWh

139 of use basis, rather than a fixed monthly charge that is used to recover
140 customer-related costs.

141 Q. What assumption results in the difference between Ameren's treatment of the
142 costs recorded in several FERC accounts as being partially customer-related,
143 compared to Staff's handling of those costs as being demand-related?

144 A. The difference between Ameren and Staff on the treatment of costs as being
145 customer-related and demand-related results from Ameren's application of the
146 zero-intercept method of determining customer costs.

147 Q. Has the zero-intercept method been brought before the Commission
148 previously?

149 A. The zero-intercept method was rejected by the Commission in the last Ameren
150 DST Docket No. 99-0121 (Order, Docket No. 99-0121, page 71). The
151 Commission's Order on Docket No. 99-0121 references other dockets where
152 the Commission also rejected the zero-intercept method. Those dockets are
153 Docket Nos. 91-0010, 90-0007 and 88-0277.

154 Use of the Staff method of differentiating customer and demand-related costs,
155 which was approved by the Commission in the Order in Ameren's previous
156 DST Docket, recognizes demand differences in the use of the distribution
157 system and allows the Company to recover its delivery services revenue
158 requirement. Unlike the zero-intercept method, the Staff method charges

159 customer classes according their use of the distribution system, rather than
160 charging each customer class according to some complex, yet vague
161 determination of the how the distribution system is available for their use. It is
162 appropriate to use the same approved Staff method in this docket.

163 Q. Did you change the classification of costs for any FERC account numbers
164 without changing the allocation among rate classes?

165 A. Yes, I did. The following customer-related FERC accounts were classified as
166 demand-related FERC accounts by Ameren: Plant-in-service account number
167 371, "Installations on customer premises"; and operating and maintenance
168 expense account number 587, "Customer installations expenses". In the
169 previous Ameren DST dockets, there were no costs resulting from account
170 numbers 371 and 587, but the Staff COSS used a classification factor that
171 was the same as was used for meters. The meters classification factor is
172 customer-related, not demand-related. The classification of account numbers
173 371 and 587 as customer-related is appropriate because costs recorded in
174 these accounts result from installations on customer premises. Since the
175 equipment and costs recorded in these accounts are not part of the common
176 distribution system and are affected by the use of individual customers, it is
177 appropriate to charge these costs as part of the customer charge, rather than
178 a demand-related charge. In this docket, costs recorded in account numbers
179 371 and 587 affect only DS-3 customers and the Special Contract customer to
180 a small extent at CIPS, and also affects UE DS-4 customers.

181 Q. Was there any difference in how you allocated Administrative and General
182 ("A&G") expense account numbers 920-935 and how Ameren allocated the
183 same accounts among rate classes?

184 A. I allocated A&G expenses according to overall distribution and delivery
185 services customer costs, which differs from Mr. Difani's allocation based upon
186 labor costs. The allocation of these accounts in the previous DST Order had a
187 few variations between A&G accounts, but for the most part were allocated on
188 an overall expense basis, which is similar to the method that I am using in
189 Schedule 2 in this docket. Since Mr. Difani's COSS grouped A&G accounts
190 into a single line item, it is appropriate to allocate the entire group of A&G
191 expense based upon an overall operations and maintenance expense factor.

192 A labor factor was used in Ameren's DST Docket No. 99-0121 to categorize,
193 or functionalize, A&G expenses among the generation, transmission and
194 distribution functions (Order, Docket No. 99-0121, page 43), but the Staff
195 method of interclass revenue allocation was used to allocate costs among rate
196 classes (Id, page 73). The Staff overall operations and maintenance expense
197 interclass revenue allocation factor for A&G expense that I used in the COSS
198 that I prepared is consistent with the Order in the last DST docket and is
199 appropriate in this docket.

Rate Design

200 Q. Please describe Schedule 2, Delivery Services Rate Design.

201 A. Schedule 2, Delivery Services Rate Design, develops and presents Staff's

202 recommended rates for the Ameren delivery services rate classes. All rate

203 classes have both a fixed monthly customer-related charge and a variable

204 demand-related charge. The calculation of each charge is straight-forward:

205 Class revenue requirement divided by class billing units. For the COSS that I

206 prepared (Schedule 1), the base revenue requirement to be allocated among

207 the delivery services rate classes was the revenue requirement calculated by

208 Ameren in the filing initiating this docket. To develop Staff-recommended

209 rates, I first prepared Schedule 1, Delivery Services Cost of Service Allocation

210 Study. On Schedule 1, I allocated total CIPS and UE-proposed delivery

211 services revenue to the respective delivery services rate classes. The cost

212 allocations among rate classes and cost classifications developed in

213 Schedule 1 are carried forward in summary to Schedule 2. Customer-related

214 and demand-related revenue requirement for each rate class is developed in

215 the workpapers supporting Schedule 1, Delivery Services Cost of Service

216 Allocation Study. Unadjusted Company revenue requirement for each class is

217 classified into either customer-related or demand-related costs. Customer-

218 related costs are charged according to a monthly fixed customer charge.

219 Demand-related costs are charged per-kW of demand or per-kWh of usage

220 depending upon the metering specifications for the rate class. Billing units for

221 both the customer charge and the demand charge are the same as those

222 shown by Ameren witnesses Mill (Ameren Exhibit No. 2.4, page 1 of 2 for
223 CIPS billing units) and Cooper (Ameren Exhibit No. 8.4, page 1 of 2 for UE
224 billing units).

225 Next, I developed a Staff Revenue Requirement Adjustment Factor through the
226 division of total Staff revenue requirement by the Company's proposed
227 revenue requirement, separately determined for CIPS and UE. The Staff
228 Revenue Adjustment Factor converts my allocation of customer costs (revenue
229 requirement) among the customer classes, from being based upon Ameren's
230 proposed revenue requirement to being based upon Staff's proposed revenue
231 requirement. The separate Staff Revenue Requirement Adjustment Factors
232 for CIPS and UE were then applied to the combined customer charges
233 (includes meter charge) and the demand charges for the appropriate
234 Company for each rate class. After application of the Staff Revenue
235 Requirement Adjustment Factor, the combined customer charge is reduced by
236 the current metering charge for each rate class, resulting in the customer
237 charge for delivery services for each rate class, similar in format to Ameren's
238 proposed rates.

239 Q. What metering services charges has Ameren proposed for its non-residential
240 customer classes?

241 A. In Ameren Exhibits 2.5 and 8.5 Ameren witnesses Mill and Cooper present the
242 proposed monthly meter charges for CIPS and UE.

243 Q. How did the Company develop their proposed meter charges?

244 A. Neither Ameren witness discusses the development of the proposed meter
245 charges. However, from the exhibits, it appears that both CIPS and UE have
246 simply proposed the meter charges that are currently in place for their
247 respective customer classes, with the exception of CIPS Special Contract
248 customer class, for which Mr. Mill is proposing a meter charge of \$141.76.
249 Although this proposed meter charge of \$141.76 is 4 times larger than the
250 \$35.44 meter charge for the next largest customer class, Mr. Mill does not
251 provide any explanation as to how this was derived.

252 Q. What is your recommendation for meter charges for the non-residential
253 customer classes?

254 A. Because the Company has proposed new delivery services rates based on
255 1999 test year costs, it is appropriate that new meter charges should also be
256 based on 1999 test year costs. Cost of service principles dictate that all
257 customer class charges should be developed from only one test year. As
258 proposed, the Company has developed its meter charges on the 12-month
259 (October, 1997 - September, 1998) test year costs used in the Company's
260 previous delivery services docket, 99-0121, and the meter unbundling docket,
261 99-0013, while all other rates have been developed from the 1999 test year
262 costs. In addition, the Company has proposed new customer classes that are
263 different from those currently in place, which raises an additional obligation on
264 the Company to develop more appropriate meter charges for each customer
265 class.

266 New meter charges for each non-residential customer class should be
267 developed to comply with the Order in Docket No. 99-0013, with particular
268 attention paid to implementation costs for unbundling meter services. The
269 Order in Docket No. 99-0013 directed Ameren to include its approved
270 implementation costs and “ . . . to revise its tariffs to reflect the recovery
271 approach adopted herein.” (Order, Docket No. 99-0013, page 33). The
272 recovery approach discussed in the Order was intended to be temporary, and
273 in place only until Ameren filed new delivery services rates. At the time of filing
274 new delivery services rates, implementation costs for unbundling metering
275 would be recovered through the appropriate ratemaking process. Since
276 Ameren filed new delivery services rates to commence this docket, Ameren
277 should provide and adequately support these new meter charges in its rebuttal
278 testimony, which I will then review and comment on in my rebuttal testimony.

279 Q. Do you have any comments on Ameren witness Mill’s description of the
280 Company’s proposal to specifically determine rates on a case-by-case basis
281 for future 138 kV delivery services customers?

282 A. Yes. It is clear that this type of customer is out-of-the-ordinary since there is
283 only one such customer at CIPS, and two at UE. If another 138 kV customer is
284 added to the CIPS or UE distribution system, the proposed rate should be
285 reviewed and approved by the Commission.

286 Q. Does this conclude your direct testimony?

287 A. Yes, it does.

AmerenCIPS Delivery Services Rate Design For the pro forma test year ended December 31, 1999									
	DS-1	DS-2 (secondary)	DS-2 (primary)	DS-3 (secondary)	DS-3 (primary)	DS-3 (HV)	Lighting	Special Contract	Total
Customer Charge									
Total Revenues	\$ 35,003.863	\$ 7,395.603	\$ 201.287	\$10,073.649	\$ 4,184.643	\$ 508.303	\$ 859.709	\$ 86.292	\$ 58,313.35
Less: Other Revenues	<u>(422.319)</u>	<u>(111.654)</u>	<u>(3.541)</u>	<u>(38.997)</u>	<u>(12.102)</u>	<u>(5.947)</u>	<u>(0.115)</u>	<u>-</u>	<u>\$ (594.67)</u>
Base Revenues	\$ 34,581.545	\$ 7,283.949	\$ 197.747	\$10,034.652	\$ 4,172.541	\$ 502.357	\$ 859.594	\$ 86.292	\$ 57,718.68
Divided by:									
Billing Units	<u>3,317,340</u>	<u>492,420</u>	<u>1,176</u>	<u>64,032</u>	<u>3,684</u>	<u>216</u>		<u>12</u>	
	\$ 10.42	\$ 14.78	\$ 168.42	\$ 156.71	\$ 1,132.61	\$ 2,325.73	#DIV/0!	\$7,191.04	
Staff Revenue Requirement									
Adjustment Factor	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)
Combined Customer Charge	\$ 9.35	\$ 13.30	\$ 151.55	\$ 141.01	\$ 1,019.14	\$ 2,092.85	#DIV/0!	\$6,470.63	
Less: Metering Charge	<u>-</u> (2)	<u>(4.35)</u>	<u>(27.28)</u>	<u>(25.35)</u>	<u>(35.44)</u>	<u>(35.44)</u>		<u>(35.44)</u>	
Customer Charge per month	<u>\$ 9.35</u>	<u>\$ 8.95</u>	<u>\$ 124.27</u>	<u>\$ 115.66</u>	<u>\$ 983.70</u>	<u>\$ 2,057.41</u>	<u>#DIV/0!</u>	<u>\$6,435.19</u>	
Revenue Recovery	\$ 31,017,129 (3)	\$ 6,549,186 (3)	\$ 178,223 (3)	\$ 9,029,152 (3)	\$ 3,754,512 (3)	\$ 452,056 (3)		\$ 77,648 (3)	\$ 51,057,905
Staff Customer-related Revenues	<u>\$ 31,117,127</u> (4)	<u>\$ 6,554,234</u> (4)	<u>\$ 177,936</u> (4)	<u>\$ 9,029,369</u> (4)	<u>\$ 3,754,531</u> (4)	<u>\$ 452,030</u> (4)		<u>\$ 77,648</u> (4)	<u>\$ 51,162,875</u>
Excess/(Deficit)	<u>\$ (99,998)</u>	<u>\$ (5,048)</u>	<u>\$ 287</u>	<u>\$ (217)</u>	<u>\$ (19)</u>	<u>\$ 26</u>		<u>\$ (0)</u>	<u>\$ (104,970)</u>
Demand Charge									
Total Revenues	\$ 65,170.724	\$ 17,306.222	\$ 539.510	\$25,974.329	\$13,671.803	\$1,349.554	\$5,134.747	\$ 260.439	\$ 129,407.33
Less: Other Revenues	<u>(2,958.406)</u>	<u>(779.431)</u>	<u>(21.818)</u>	<u>(1,056.493)</u>	<u>(564.173)</u>	<u>(57.360)</u>	<u>(197.801)</u>	<u>(0.080)</u>	<u>\$ (5,635.56)</u>
Base Revenues	\$ 62,212.318	\$ 16,526.790	\$ 517.692	\$24,917.836	\$13,107.630	\$1,292.194	\$4,936.946	\$ 260.360	\$ 123,771.77
Divided by:									
Billing Units	<u>2,831,848,723</u>	<u>954,270,314</u>	<u>29,584,264</u>	<u>4,780,104</u>	<u>3,836,004</u>	<u>968,422</u>		<u>809,274</u>	
	\$ 0.0220	\$ 0.0173	\$ 0.0175	\$ 5.2128	\$ 3.4170	\$ 1.3343	#DIV/0!	\$ 0.3217	
Staff Revenue Requirement									
Adjustment Factor	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)	<u>0.89982</u> (1)
Energy or Demand Charge	\$ 0.0198	\$ 0.0156	\$ 0.0157	\$ 4.6906	\$ 3.0747	\$ 1.2006	#DIV/0!	\$ 0.2895	
	per kWh of	per kWh of	per kWh of	per kW of	per kW of	per kW of	per kW of	per kW of	
	<u>Energy</u>	<u>Energy</u>	<u>Energy</u>	<u>Demand</u>	<u>Demand</u>	<u>Demand</u>	<u>Demand</u>	<u>Demand</u>	
Revenue Recovery	\$ 56,070,605	\$ 14,886,617	\$ 464,473	\$22,421,556	\$11,794,561	\$1,162,687		\$ 234,285	\$107,034,784
Staff Demand-related Revenues	<u>\$ 55,979,818</u> (3)	<u>\$ 14,871,118</u> (3)	<u>\$ 465,829</u> (3)	<u>\$22,421,539</u> (3)	<u>\$11,794,493</u> (3)	<u>\$1,162,740</u> (3)		<u>\$ 234,276</u> (3)	<u>\$106,929,814</u>
Excess/(Deficit)	<u>\$ 90,786</u>	<u>\$ 15,499</u>	<u>\$ (1,356)</u>	<u>\$ 17</u>	<u>\$ 68</u>	<u>\$ (53)</u>		<u>\$ 8</u>	<u>\$ 104,970</u>
Customer and Demand Revenue Recovery	\$ 87,087,734	\$ 21,435,803	\$ 642,696	\$31,450,708	\$15,549,073	\$1,614,743		\$ 311,932	\$158,092,689
Staff Revenue Requirement	<u>\$ 87,096,945</u> (4)	<u>\$ 21,425,352</u> (4)	<u>\$ 643,765</u> (4)	<u>\$31,450,908</u> (4)	<u>\$15,549,024</u> (4)	<u>\$1,614,770</u> (4)		<u>\$ 311,924</u> (4)	<u>\$158,092,690</u>
Excess/(Deficit)	<u>\$ (9,211)</u>	<u>\$ 10,451</u>	<u>\$ (1,069)</u>	<u>\$ (200)</u>	<u>\$ 49</u>	<u>\$ (27)</u>		<u>\$ 8</u>	<u>\$ (0)</u>

(1) Staff Revenue Requirement \$ 168,914,000
Divided by: Company Revenue Requirement \$ 187,720,000
= Staff Revenue Requirement Adjustment Factor 0.89982

(2) Unbundled Metering is not currently available to DS-1 customers.

(3) Base Revenues x Staff Revenue Requirement Adjustment Factor

(4) = (Customer-related Base Revenue + Demand-related Base Revenue) x Staff Revenue Conversion Factor

AmerenCIPS Delivery Services Rate Design For the pro forma test year ended December 31, 1999									
	DS-1	DS-2 (secondary)	DS-2 (primary)	DS-3 (secondary)	DS-3 (primary)	DS-3 (HV)	Lighting	Special Contract	Total
<u>Customer Costs</u>									
Rate Base	\$ 24,401.37	\$ 5,477.73	\$ 197.52	\$ 2,460.37	\$ 579.84	\$ 342.32	\$ 68.82	\$ 79.75	\$ 33,607.74
ROR	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	
Net Operating Income	\$ 2,378.16	\$ 533.86	\$ 19.25	\$ 239.79	\$ 56.51	\$ 33.36	\$ 6.71	\$ 7.77	\$ 3,275.41
Income Taxes	\$ 1,151.88	\$ 258.58	\$ 9.32	\$ 116.14	\$ 27.37	\$ 16.16	\$ 3.25	\$ 3.76	\$ 1,586.47
Operating and Maintenance Expenses	\$ <u>31,473.83</u> (1)	\$ <u>6,603.16</u> (1)	\$ <u>172.71</u> (1)	\$ <u>9,717.72</u> (1)	\$ <u>4,100.76</u> (1)	\$ <u>458.78</u> (1)	\$ <u>849.75</u> (1)	\$ <u>74.76</u> (1)	\$ <u>53,451.47</u> (1)
Total Revenues	\$ <u>35,003.86</u>	\$ <u>7,395.60</u>	\$ <u>201.29</u>	\$ <u>10,073.65</u>	\$ <u>4,184.64</u>	\$ <u>508.30</u>	\$ <u>859.71</u>	\$ <u>86.29</u>	\$ <u>58,313.35</u>
<u>Demand Costs</u>									
Rate Base	\$ 183,792.80	\$ 48,672.54	\$ 1,488.00	\$ 72,753.05	\$ 37,557.21	\$ 3,739.92	\$11,556.50	\$ 739.84	\$ 360,299.87
ROR	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	<u>0.09746</u>	
Return	\$ 17,912.45	\$ 4,743.63	\$ 145.02	\$ 7,090.51	\$ 3,660.33	\$ 364.49	\$ 1,126.30	\$ 72.10	\$ 35,114.82
Income Taxes	\$ 8,676.01	\$ 2,297.60	\$ 70.24	\$ 3,434.33	\$ 1,772.90	\$ 176.54	\$ 545.53	\$ 34.92	\$ 17,008.09
Operating and Maintenance Expenses	\$ <u>38,582.27</u>	\$ <u>10,264.99</u>	\$ <u>324.25</u>	\$ <u>15,449.48</u>	\$ <u>8,238.58</u>	\$ <u>808.52</u>	\$ <u>3,462.92</u>	\$ <u>153.41</u>	\$ <u>77,284.42</u>
Total Revenues	\$ <u>65,170.72</u>	\$ <u>17,306.22</u>	\$ <u>539.51</u>	\$ <u>25,974.33</u>	\$ <u>13,671.80</u>	\$ <u>1,349.55</u>	\$ <u>5,134.75</u>	\$ <u>260.44</u>	\$ <u>129,407.33</u>
Combined Revenue Requirement	\$ <u>100,174.59</u>	\$ <u>24,701.82</u>	\$ <u>740.80</u>	\$ <u>36,047.98</u>	\$ <u>17,856.45</u>	\$ <u>1,857.86</u>	\$ <u>5,994.46</u>	\$ <u>346.73</u>	\$ <u>187,720.68</u>
(1) Operating and Maintenance Expenses									
CUSTOMER-- DISTRIBUTION, CUSTOMER AND /	\$ 27,933.00	\$ 5,752.76	\$ 149.91	\$ 9,194.28	\$ 3,959.59	\$ 418.49	\$ 830.95	\$ 64.88	\$ 48,303.87
DEMAND -- DISTRIBUTION, CUSTOMER AND /	\$ 16,089.66	\$ 4,276.44	\$ 144.33	\$ 6,466.26	\$ 3,650.93	\$ 403.11	\$ 1,595.98	\$ 56.32	\$ 32,683.04
CUSTOMER -- DEPRECIATION AND AMORTIZAT	\$ 2,162.83	\$ 560.59	\$ 14.31	\$ 273.71	\$ 51.51	\$ 23.84	\$ 7.90	\$ 5.93	\$ 3,105.21
DEMAND -- DEPRECIATION AND AMORTIZAT	\$ 16,369.63	\$ 4,348.26	\$ 131.65	\$ 6,555.01	\$ 3,342.24	\$ 293.01	\$ 1,353.84	\$ 71.56	\$ 32,460.61
CUSTOMER -- NET RATE BASE	\$ 24,401.37	\$ 5,477.73	\$ 197.52	\$ 2,460.37	\$ 579.84	\$ 342.32	\$ 68.82	\$ 79.75	\$ 33,548.85
DEMAND -- NET RATE BASE	\$ 183,792.80	\$ 48,672.54	\$ 1,488.00	\$ 72,753.05	\$ 37,557.21	\$ 3,739.92	\$11,556.50	\$ 739.84	\$ 360,358.76
REAL ESTATE & PROPERTY TAXES	\$ 6,268.52	\$ 1,661.40	\$ 49.55	\$ 2,304.95	\$ 1,148.02	\$ 109.38	\$ 444.32	\$ 25.98	\$ 12,012.12
CUSTOMER	\$ 734.70	\$ 168.06	\$ 5.81	\$ 75.40	\$ 17.45	\$ 9.17	\$ 2.63	\$ 2.53	\$ 1,023.06
DEMAND	\$ 5,533.82	\$ 1,493.34	\$ 43.75	\$ 2,229.55	\$ 1,130.56	\$ 100.21	\$ 441.69	\$ 23.45	\$ 10,989.06
CUST. -- DISTRIB., CUST. AND A&G LABOR	\$ 9,274.16	\$ 1,872.39	\$ 45.49	\$ 3,005.35	\$ 1,218.21	\$ 126.52	\$ 122.85	\$ 20.68	\$ 15,685.65
DEMAND. -- DISTRIB., CUST. AND A&G LABOR	\$ 8,493.63	\$ 2,260.15	\$ 76.59	\$ 3,424.87	\$ 1,937.47	\$ 211.65	\$ 1,061.47	\$ 30.33	\$ 17,496.17
PAYROLL TAXES	\$ 1,232.46	\$ 268.71	\$ 7.21	\$ 373.00	\$ 187.05	\$ 19.47	\$ 79.67	\$ 3.49	\$ 2,171.05
CUSTOMER	\$ 643.30	\$ 121.75	\$ 2.69	\$ 174.33	\$ 72.21	\$ 7.28	\$ 8.26	\$ 1.41	\$ 1,026.30
DEMAND	\$ 589.16	\$ 146.96	\$ 4.52	\$ 198.67	\$ 114.84	\$ 12.18	\$ 71.41	\$ 2.08	\$ 1,144.76

(2) = Customer + Demand

AmerenUE
Delivery Services Rate Design
For the pro forma test year ended December 31, 1999

Line No.		DS-1	DS-2	DS-3	DS-4	DS-4 (HV)	DS-4 (HV 2)	Lighting	Total
<u>Customer Charge</u>									
1	Total Revenues	\$ 6,861.751	\$ 1,494.546	\$ 790.384	\$ 985.708	\$ 282.098	\$ 137.904	\$ 249.612	\$ 10,802.00
2	Less: Other Revenues	<u>(213.637)</u>	<u>(20.608)</u>	<u>(1.018)</u>	<u>(0.620)</u>	<u>(0.206)</u>	<u>(0.041)</u>	<u>(0.063)</u>	<u>(236.194)</u>
3	Base Revenues	\$ 6,648.114	\$ 1,473.938	\$ 789.367	\$ 985.088	\$ 281.892	\$ 137.863	\$ 249.549	\$ 10,565.81
Divided by:									
4	Billing Units	<u>650,688</u>	<u>83,820</u>	<u>3,264</u>	<u>720</u>	<u>36</u>	<u>24</u>		
5		\$ 10.22	\$ 17.58	\$ 241.84	\$ 1,368.18	\$ 7,830.33	\$ 5,744.28		
Staff Revenue Requirement									
6	Adjustment Factor	0.84061 (1)	0.84061 (1)	0.84061 (1)	0.84061 (1)	0.84061 (1)	0.84061 (1)		
7	Combined Customer Charge	\$ 8.65	\$ 14.81	\$ 203.29	\$ 1,149.86	\$ 6,582.10	\$ 4,828.71		
8	Less: Metering Charge	<u>-</u> (2)	<u>(5.42)</u>	<u>(29.95)</u>	<u>(76.15)</u>	<u>(76.15)</u>	<u>(76.15)</u>		
9	Customer Charge per month	\$ 8.65	\$ 9.39	\$ 173.34	\$ 1,073.71	\$ 6,505.95	\$ 4,752.56		
10	Revenue Recovery	\$ 5,628.451	\$ 1,241.374	\$ 663.539	\$ 827.899	\$ 236.956	\$ 115.889		\$ 8,714.108
11	Staff Customer-related Revenues	<u>\$ 5,588.479</u> (3)	<u>\$ 1,239.009</u> (3)	<u>\$ 663.550</u> (3)	<u>\$ 828.076</u> (3)	<u>\$ 236.962</u> (3)	<u>\$ 115.889</u> (3)		<u>\$ 8,671.965</u>
12	Excess/(deficit)	<u>\$ 39,972</u>	<u>\$ 2,365</u>	<u>\$ (12)</u>	<u>\$ (177)</u>	<u>\$ (6)</u>	<u>\$ 0</u>		<u>\$ 42,143</u>
<u>Demand Charge</u>									
13	Total Revenues	\$ 9,089.894	\$ 3,329.200	\$ 3,117.576	\$ 4,163.631	\$ 1,105.751	\$ 624.459	\$ 2,019.809	\$ 21,430.51
14	Less: Other Revenues	<u>(110.307)</u>	<u>(24.429)</u>	<u>(13.908)</u>	<u>(16.609)</u>	<u>(4.624)</u>	<u>(2.618)</u>	<u>(8.254)</u>	<u>(180.749)</u>
15	Base Revenues	\$ 8,979.587	\$ 3,304.771	\$ 3,103.668	\$ 4,147.022	\$ 1,101.127	\$ 621.841	\$ 2,011.555	\$ 23,269.57
Divided by:									
16	Billing Units	<u>605,549,000</u>	<u>280,351,000</u>	<u>865,761</u>	<u>1,750,450</u>	<u>1,739,559</u>	<u>1,077,268</u>		
17		\$ 0.0148	\$ 0.0118	\$ 3.5849	\$ 2.3691	\$ 0.6330	\$ 0.5772		
Staff Revenue Requirement									
18	Adjustment Factor	0.84061 (1)	0.84061 (1)	0.84061 (1)	0.84061 (1)	0.84061 (1)	0.84061 (1)		
19	Energy or Demand Charge	\$ 0.0124 per kWh of Energy	\$ 0.0099 per kWh of Energy	\$ 3.0135 per kW of Demand	\$ 1.9915 per kW of Demand	\$ 0.5321 per kW of Demand	\$ 0.4852 per kW of Demand		
20	Revenue Recovery	\$ 7,508,808	\$ 2,775,475	\$ 2,608,971	\$ 3,486,021	\$ 925,619	\$ 522,690		
21	Staff Demand-related Revenues	<u>\$ 7,548,341</u> (3)	<u>\$ 2,778,028</u> (3)	<u>\$ 2,608,978</u> (3)	<u>\$ 3,486,033</u> (3)	<u>\$ 925,620</u> (3)	<u>\$ 522,727</u> (3)		
22	Excess/(deficit)	<u>\$ (39,534)</u>	<u>\$ (2,553)</u>	<u>\$ (7)</u>	<u>\$ (12)</u>	<u>\$ (0)</u>	<u>\$ (36)</u>		
21	Customer and Demand Revenue Recovery	\$13,137,259	\$ 4,016,849	\$ 3,272,509	\$ 4,313,920	\$ 1,162,575	\$ 638,579		\$26,541,692
22	Staff Class Base Revenue Requirement	<u>\$13,136,820</u> (4)	<u>\$ 4,017,037</u> (4)	<u>\$ 3,272,529</u> (4)	<u>\$ 4,314,109</u> (4)	<u>\$ 1,162,581</u> (4)	<u>\$ 638,616</u> (4)		<u>\$26,541,691</u>
23	Excess/(deficit)	<u>\$ 438</u>	<u>\$ (187)</u>	<u>\$ (19)</u>	<u>\$ (189)</u>	<u>\$ (6)</u>	<u>\$ (36)</u>		<u>\$ 1</u>
(1) Staff Revenue Requirement									
Divided by: Company Revenue Requirement			\$28,793,000						
= Staff Revenue Requirement Adjustment Factor			<u>\$34,252,458</u>						
			<u>0.84061</u>						

(2) Unbundled Metering is not currently available to DS-1 customers.

(3) Base Revenues x Staff Revenue Requirement Adjustment Factor

(4) = (Customer-related Base Revenue + Demand-related Base Revenue) x Staff Revenue Conversion Factor

AmerenUE
Delivery Services Rate Design
For the pro forma test year ended December 31, 1999

Line No.		DS-1	DS-2	DS-3	DS-4	DS-4 (HV)	DS-4 (HV 2)	Lighting	Total
<u>Customer Costs</u>									
1	Rate Base	\$ 4,107.35	\$ 817.74	\$ 196.01	\$ 210.45	\$ 250.09	\$ 90.94	\$ 44.51	\$ 5,717.09
2	ROR	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	
3	Net Operating Income	\$ 444.05	\$ 88.41	\$ 21.19	\$ 22.75	\$ 27.04	\$ 9.83	\$ 4.81	\$ 618.07
4	Income Taxes	\$ 360.44	\$ 71.76	\$ 17.20	\$ 18.47	\$ 21.95	\$ 7.98	\$ 3.91	\$ 501.70
5	Operating and Maintenance Expenses	\$ 6,057.27 (1)	\$ 1,334.38 (1)	\$ 751.99 (1)	\$ 944.49 (1)	\$ 233.11 (1)	\$ 120.09 (1)	\$ 240.89 (1)	\$ 9,682.23
6	Total Revenues	<u>\$ 6,861.75</u>	<u>\$ 1,494.55</u>	<u>\$ 790.38</u>	<u>\$ 985.71</u>	<u>\$ 282.10</u>	<u>\$ 137.90</u>	<u>\$ 249.61</u>	\$ 10,802.00
<u>Demand Costs</u>									
7	Rate Base	\$ 17,875.62	\$ 6,483.86	\$ 6,019.04	\$ 8,151.06	\$ 2,015.57	\$ 1,134.33	\$ 4,078.99	
8	ROR	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	<u>0.10811</u>	
9	Return	\$ 1,932.53	\$ 700.97	\$ 650.72	\$ 881.21	\$ 217.90	\$ 122.63	\$ 440.98	\$ 4,946.95
10	Income Taxes	\$ 1,568.65	\$ 568.98	\$ 528.19	\$ 715.29	\$ 176.87	\$ 99.54	\$ 357.95	\$ 4,015.48
11	Operating and Maintenance Expenses	\$ 5,588.71	\$ 2,059.25	\$ 1,938.66	\$ 2,567.13	\$ 710.97	\$ 402.28	\$ 1,220.88	\$ 14,487.90
12	Total Revenues	<u>\$ 9,089.89</u>	<u>\$ 3,329.20</u>	<u>\$ 3,117.58</u>	<u>\$ 4,163.63</u>	<u>\$ 1,105.75</u>	<u>\$ 624.46</u>	<u>\$ 2,019.81</u>	\$ 23,450.32
13	<u>Combined Revenue Requirement</u>	<u>\$ 15,951.65</u>	<u>\$ 4,823.75</u>	<u>\$ 3,907.96</u>	<u>\$ 5,149.34</u>	<u>\$ 1,387.85</u>	<u>\$ 762.36</u>	<u>\$ 2,269.42</u>	<u>\$ 34,252.32</u>
(1) Operating and Maintenance Expenses									
14	CUSTOMER-- DISTRIBUTION, CUSTOMER AN	\$ 5,045.21	\$ 1,111.52	\$ 658.83	\$ 888.22	\$ 193.66	\$ 105.11	\$ 225.72	\$ 8,228.29
15	DEMAND -- DISTRIBUTION, CUSTOMER AN	\$ 1,880.21	\$ 708.51	\$ 684.05	\$ 1,006.42	\$ 297.86	\$ 167.89	\$ 454.98	\$ 5,199.99
16	CUSTOMER -- DEPRECIATION AND AMORTIZ	\$ 559.26	\$ 132.28	\$ 64.52	\$ 21.58	\$ 18.50	\$ 6.80	\$ 10.20	\$ 812.03
17	DEMAND -- DEPRECIATION AND AMORTIZ	\$ 2,282.06	\$ 826.35	\$ 763.27	\$ 962.09	\$ 258.11	\$ 145.69	\$ 463.92	\$ 5,702.63
18	CUSTOMER -- NET RATE BASE	\$ 4,107.35	\$ 817.74	\$ 196.01	\$ 210.45	\$ 250.09	\$ 90.94	\$ 44.51	\$ 5,721.56
19	DEMAND -- NET RATE BASE	\$ 17,875.62	\$ 6,483.86	\$ 6,019.04	\$ 8,151.06	\$ 2,015.57	\$ 1,134.33	\$ 4,078.99	\$ 45,754.00
20	REAL ESTATE & PROPERTY TAXES	\$ 1,679.06	\$ 567.13	\$ 488.78	\$ 585.22	\$ 164.06	\$ 90.32	\$ 282.53	\$ 3,857.10
21	CUSTOMER	\$ 313.72	\$ 63.52	\$ 15.42	\$ 14.73	\$ 18.11	\$ 6.70	\$ 3.05	\$ 428.72
22	DEMAND	\$ 1,365.34	\$ 503.61	\$ 473.36	\$ 570.49	\$ 145.95	\$ 83.62	\$ 279.48	\$ 3,428.38
23	CUST. -- DISTRIB., CUST. AND A&G LABOR	\$ 1,955.07	\$ 419.60	\$ 226.65	\$ 324.15	\$ 46.59	\$ 24.29	\$ 28.62	\$ 3,024.97
24	DEMAND. -- DISTRIB., CUST. AND A&G LABO	\$ 858.82	\$ 322.02	\$ 308.11	\$ 456.86	\$ 148.34	\$ 83.61	\$ 334.34	\$ 2,512.11
25	PAYROLL TAXES	\$ 200.18	\$ 47.84	\$ 31.20	\$ 48.09	\$ 11.89	\$ 6.57	\$ 24.43	\$ 370.20
26	CUSTOMER	\$ 139.08	\$ 27.06	\$ 13.23	\$ 19.96	\$ 2.84	\$ 1.48	\$ 1.93	\$ 202.25
27	DEMAND	\$ 61.10	\$ 20.77	\$ 17.98	\$ 28.13	\$ 9.04	\$ 5.09	\$ 22.51	\$ 167.96

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